

**Pro-face**  
— HMI Human Machine Interface —

# PROGRAMMABLE OPERATOR INTERFACES



S E R I E S

**32 bit  
RISC CPU POWER**

**GP**  
**SERIES**  
Pro-face



ISO9001  
JQA-1367

# Faster, Smarter, Brighter

Pro-face's New GP77 Series Operator Interfaces with Super High-Speed 100 MHz RISC CPU



Today's rapid pace of high-tech innovation has increased the need for industrial automation.

Pro-face's "GP Series" programmable operator interfaces, in pursuit of more comfortable communication between human and machines, have been striving for the best: high performance and advanced design.

Going through a series of innovation, GP Series have gained popularity among many users.

"From PLC's Face to its Brain" - Pro-face's lineup of new concept programmable display panels each pursues the primary goals of the next generation of industrial automation, "Faster, Smarter, and Brighter".

## Power GP Series Full Line up!!



**Next generation programmable operator interface - "From PLC's Face to its Brain" - the Power GP Series!**

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# High Performance Interface GP77 Series



## GP-577RT

- 100MHz RISC CPU
- Resolution : 640 x 480 pixels
- 10.4 inch TFT Color LCD
- FLASH EPROM 2MB (Screen Memory)



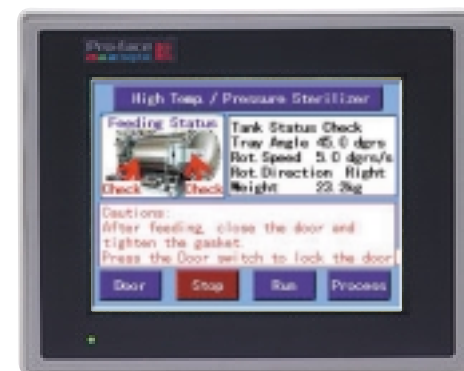
## GP-577RS

- 100MHz RISC CPU
- Resolution : 640 x 480 pixels
- 10.4 inch STN Color LCD
- FLASH EPROM 2MB (Screen Memory)



## GP-477RE

- 100MHz RISC CPU
- Resolution : 640 x 400 pixels
- 9 inch High Intensity EL
- FLASH EPROM 2MB (Screen Memory)



## GP-377RT

- 100MHz RISC CPU
- Resolution : 320 x 240 pixels
- 6 inch TFT Color LCD
- FLASH EPROM 2MB (Screen Memory)



### Multi Unit E

(Model: GP377RT-MLTE41)

\* Only for GP-377R

- 2-Way (via Ethernet) communication
- Printer I/F
- CF card support



## GP-377S

NEW

- 100MHz RISC CPU
- Resolution : 320 x 240 pixels
- 6 inch STN Color LCD
- FLASH EPROM 1MB (Screen Memory)



## GP-377L

NEW

- 100MHz RISC CPU
- Resolution : 320 x 240 pixels
- 6 inch Monochrome LCD
- FLASH EPROM 1MB (Screen Memory)



## New Low-Cost, High Performance 6 inch Models

### Ultra-fast 100MHz RISC CPU equipped

Quick startup and screen change for smooth operation!  
3 times faster overall performance.

### 2 times brighter\*1 / 30,000 hours\*2 backlight lifetime

2 times brighter display and 1.5 times longer backlight lifetime.

\*1 Compared to GP-370S and GP-370L.

\*2 24 hours/day use at normal operating temperatures.

### High Quality Asian Fonts

Chinese, Korean and Taiwanese fonts displayed on GP377 S/L units are, now, available with smoother quality of 32 x 32 dots.

#### China

16×16 32×32  
承聘 承聘  
赤翅 赤翅

#### Korea

16×16 32×32  
것겅 겅겅  
겅겅 겅겅

#### Taiwan

16×16 32×32  
地迅 地迅  
辰並 辰並





# GP77 Series Standard Features

## Faster

### Fast screen changes for smooth operation

New 100MHz chip is 3 times faster!\*

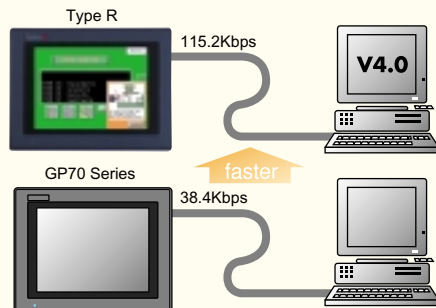
The GP77's RISC CPU calls up and opens screens in a flash, providing smooth, "no-wait" operation.

\* Compared with GP70 series unit running demo application.

### Reduces overall debugging and maintenance time

Data transfer is twice as fast

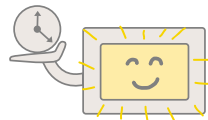
The GP77R's blistering 115.2 Kbps \* speed cuts your PC to GP data transfer time in half. It also means you spend your valuable time maintaining and debugging, instead of waiting for data to download or screens to change.



\*Some PCs do not support 115.2kbps data transfer.

## Long-life backlight

In addition to improved brightness, backlight lifetime is significantly longer than GP 70 Series units. Backlights are also user-replaceable and easily changed.\*1



GP-377 RT (50,000 hours)\*2  
GP-577 RT (40,000 hours)\*2  
GP-377 S/L (30,000 hours)\*2  
GP-577 RS (25,000 hours)\*2

\*1 except GP-377RT.  
\*2 Time required for backlight brightness to decrease 50%.

## Brighter

### Clear viewing in bright areas

Both TFT and STN displays are 2 times brighter\*

The GP77's screens are twice as bright as GP70 series units, and rival that of a standard CRT.

\* Compared with GP70 series.

### Adjusts to any environment

Select from 4 brightness levels\*

You can easily adjust the GP77's brightness level to fit your operation needs.

\* GP-477RE has 2 levels of brightness.



## Clearer

### Create active and vivid applications

64 color TFT and STN Displays

The GP77R's easy-to-read 64 color display allows you to create dynamic application screens.



### Alarm types are recognizable at a glance

3 Flashing speeds\*

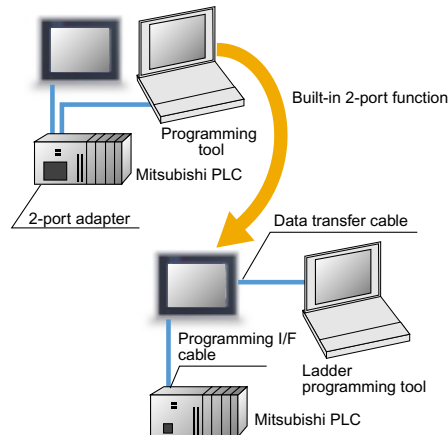
Screen data ON/OFF blinking speeds are selectable (slow, medium, fast), making alarms and data easy to recognize.

\* Available with GP-577RT, GP-577RS and GP-377RT/S only.

## Built-in 2-port Function

The 2-port function, using the "Data Transfer Cable" and "Programming I/F Cable", allows direct connections between GP and a Mitsubishi PLC. This reduces your connection costs.

\*No 2-port adapter required.



## High speed GP - to PLC communication

GP77 Series supports high speed RS-232C data transfer (115.2kbps)

### PLCs supporting 115.2kbps\*

Matsushita FP10SH  
Mitsubishi MELSEC QnA series  
OMRON CS-1  
Sharp JW30 series



\* For more details, please contact your sales representative or Pro-face.



## Programmable Operator Interface Revolution!-GP77R Series

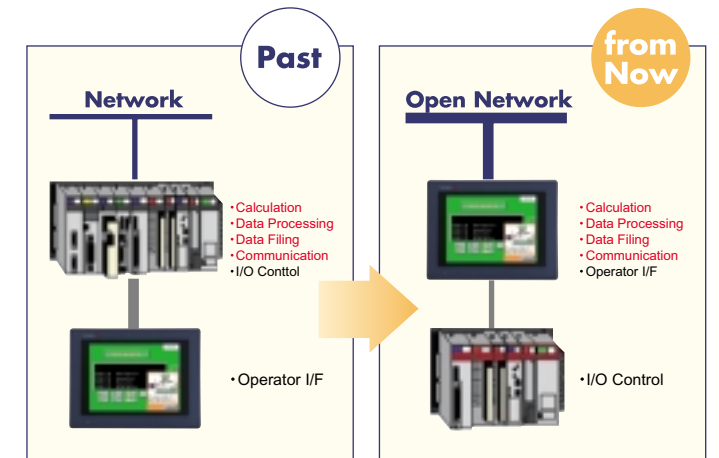
# Evolving HMI-from PLC's "Face" to its "Brain"

## Intelligent operator interface The GP77R Series

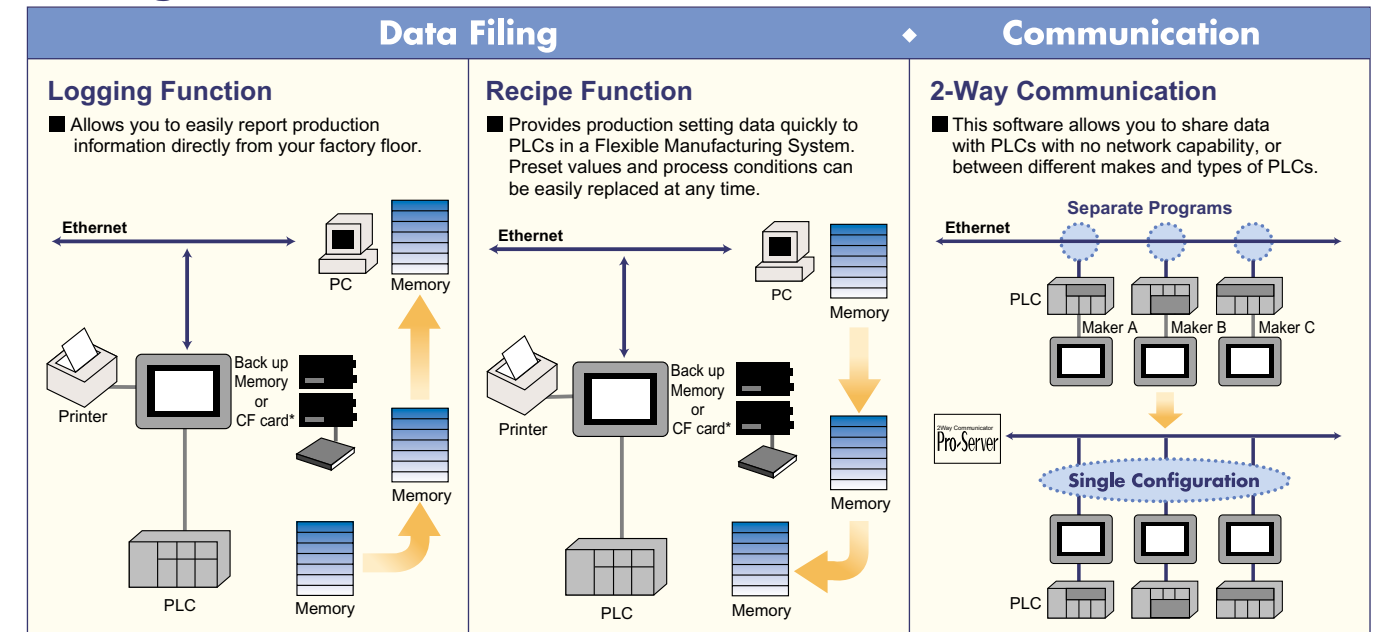
Pro-face's GP77R series units help you meet the recent demands put on the workplace by ISO, PL and HACCP requirements. Pro-face's new hardware and software allows you to easily collect vital historical production maintenance data, and helps you perform essential preventive maintenance.

The newly developed GP77R panel transforms the role of an HMI from the "face" of the PLC to its "brain". This adds up to significant cost and man-hour savings for the management and control of your processing information.

Furthermore, the combination of high-speed I/O control between these units and connectable PLCs, and the GP77R's enhanced "intelligence" ensures that your applications perform better than ever.



## Intelligent Features



\* Optional Multi Unit E required

## New Products Supporting the GP77R Series Evolution



Screen editor software  
**GP-PRO/PB III for Windows**  
(GPW-PB01M-V40 or higher)

Features include the ability to Log and File PLC information. Helps to reduce PLC ladder programming processes/steps and amount of memory used.

Large size / Medium size Multi Unit  
**MULTI UNIT E**  
(GP077-MLTE41  
GP377R-MLTE41)

The optional Multi Unit E expands the GP77R Series connectivity with an Ethernet I/F, CF card I/F and Sound output I/F for GP477R/GP577R and Printer I/F for GP377RT.



Photo: Multi Unit E (Model: GP377R-MLTE41)



Data collection Software  
**Pro-Server**  
with Pro-Studio  
(PSW-ED01-V20 or higher)

This software allows the GP77R to act as a "t-ternet gateway" and provide programless data communication between a host PC, GP77R and multiple different PLCs via an Ethernet network.

Expansion unit  
**GP Ethernet Interface Unit**  
(10BASE-T)  
(Model: GP070-ET41)

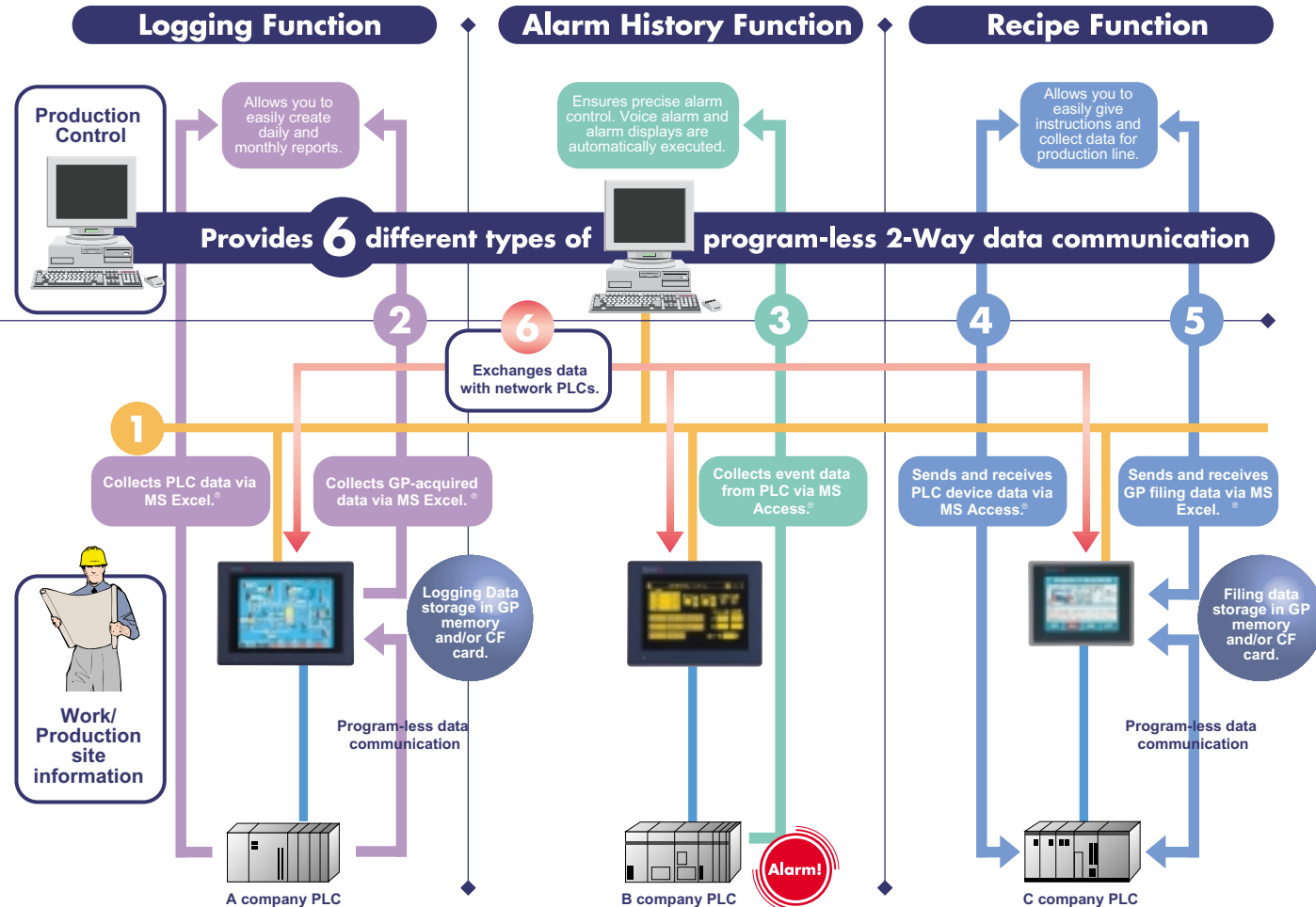
This interface unit allows GP to transmit data with the host via Ethernet Network.





# Allows you to monitor your production site information in real time!

Pro-Server with Pro-Studio V2.0



## Polling (Optimization Function)

Data can be read from multiple GP units simultaneously, thereby reducing the number of data read requests from an application. Improves data read performance when using multiple GP units.

## Security Function

Passwords are used to prevent data access by personnel other than system administrators, thereby protecting data from problems such as device overwriting, etc.

## CF Card File Transfer Function

Logging, filing and alarm data that has been "filed" via the GP's screen editor software can be transferred to another GP77R unit's CF card using an Ethernet network.\*

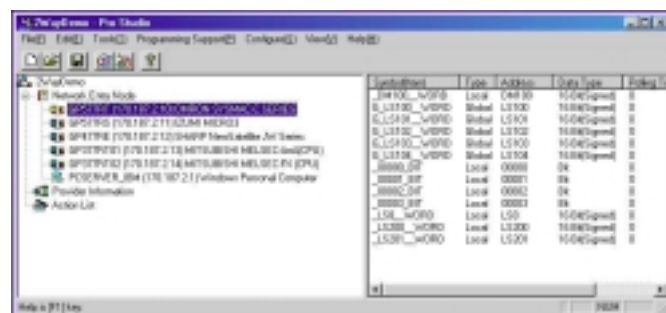
\* requires installation of Multi Unit E.

## OPC Compatible (OLE for Process Control)

Microsoft's object technology OLE/ActiveX allows manufacturing related industrial applications to be easily connected.

## Device Monitoring Function

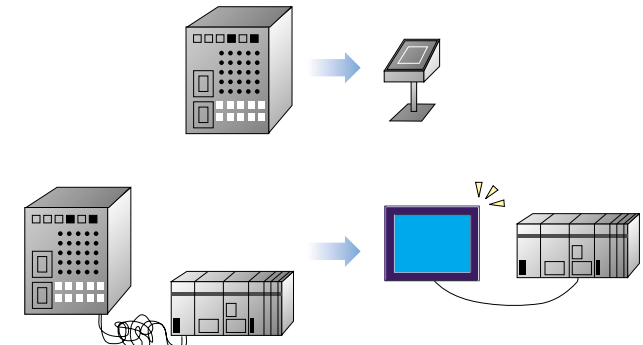
Since PLC devices can be monitored by simply selecting a symbol, on Pro-Studio a simple simulation can be performed prior to starting an application. With this function, multiple screens can be displayed at one time, and the IP address and device address can be input.



# Save Development Time and Space while Improving Operability

## Downsize and Simplify Your Application

Using the GP Series keep your systems as compact as possible, even though your control programs get more and more sophisticated. The touchpanel graphic operator interface, GP Series, is a state-of-the-arts intelligent equipment, which has been widely installed as a main operator panel throughout the manufacturing fields. You can operate production systems via numerous data and graphics displayed on the screen, while reducing numbers of control programming and wiring.



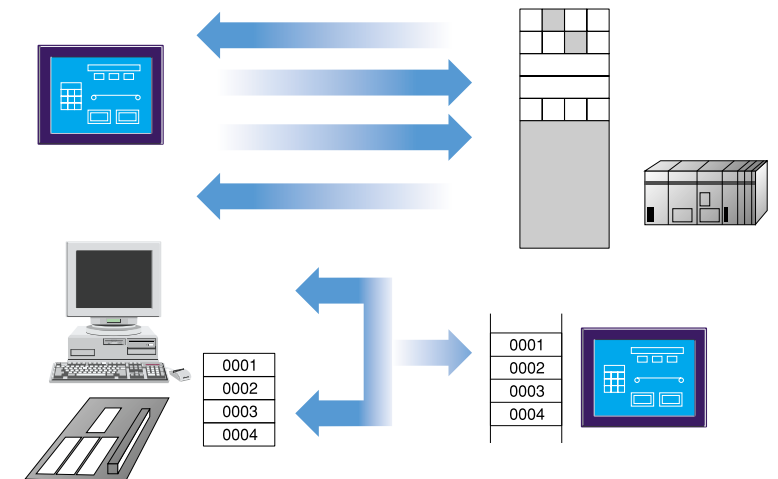
## Simple Communication Methods

### [Direct Access Method]

Simply select your target PLC when you create screen data. The Direct Access method allows the GP to communicate with Word and Bit devices in the PLC memory directly. Since this method is, also, called as a program-less communication, there will be no extra load on the PLC.

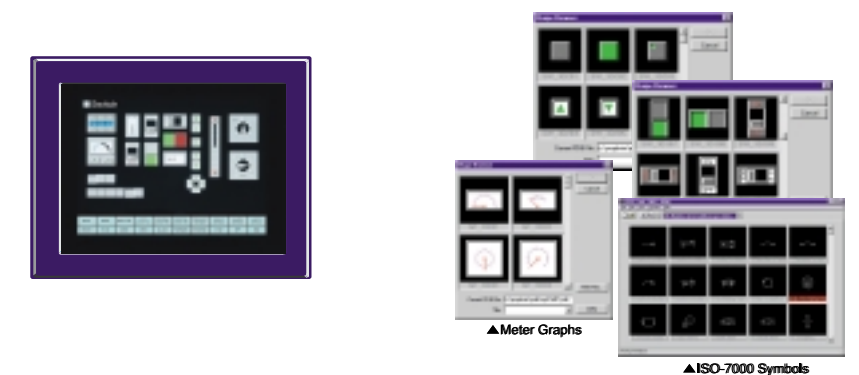
### [Memory Link Method]

You can create your own communication programs to connect the GP with your specialized controllers, such as single-board computers and PCs. The GP displays data mapped from the host's memory for monitoring and operation.



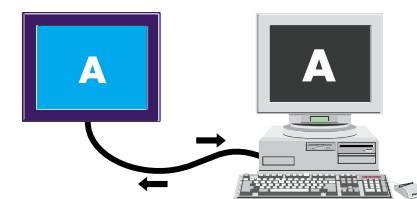
## Create Unique Screens in Minutes

You can simply and freely create your own operation screens for each requirement in your applications, using a variety of powerful tools, such as the Part Box, Tags and D-Script macro program, on the GP-PRO/PB III for Windows software. The software creation of the operator interface also, allows you easy change, debugging and reuse of the data whenever required.



## Minimize Your Work for Maintenance and System Expansion

After creating screen data, just download it to the GP unit, then connect the GP with the host via a single cable for immediate operation. You can, also, simulate the GP with your PC for quick debugging, before you take it to the field.







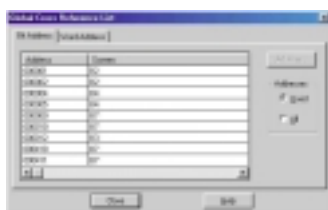
## Screen Creation and Editing is Easier and More Powerful Than Ever!

### Use Your Device Addresses More Efficiently

#### ◆ Global Cross-references!

##### ● Maintenance is easier than ever! (List display)

All of a project's device addresses can be checked at a glance.



##### ● System Upgrades Are Easier! (Map display)

Device address usage can also be displayed as a chart, allowing you to easily find unused addresses.



### Quickly Check Load Screen Nesting Levels

#### ◆ Nesting List

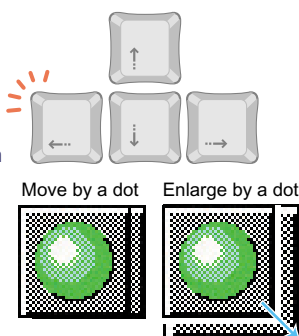
Version 4.0 can create a Nesting List for complex project screens containing multiple Load Screens. This will speed up your screen editing as you no longer need to spend time searching for a load screen's original data.



### Try These Useful Functions!!

#### ◆ Enlarge and Move Objects Via Your Keyboard Cursor

Fine-tuning the position and layout of your screen objects on screen grid points via a mouse could be difficult. Version 4.0 allows you to use your keyboard's arrow keys to enlarge and move objects easily, making detailed screen creation and layout easier than ever.



#### ◆ Direct Entry of Drawing Object Coordinate Values

To change an object's position or size, just enter the object's coordinate values, guaranteeing 100% accurate screen layout.



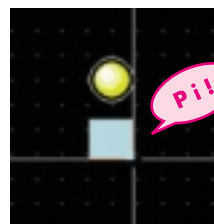
#### ◆ Cursor Position Zoom

Enlarges the area where the cursor is currently positioned 3 times, allowing easy editing of detailed screen drawings.



#### ◆ Hairline Cursor

Use this cursor as a standard when you align screen objects.



#### ◆ Font Selection and Mark Screens

Windows® fonts can be imported as character data to a project's Mark screens via the font selection function, allowing you to create screens with a variety of types of characters.

#### Text Images

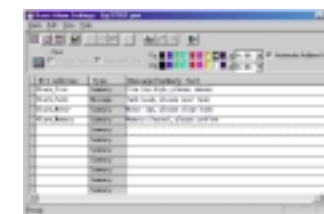


## Importing/Exporting Project Alarm Data Improves Efficiency

Improve your efficiency by reducing the amount of repetitious Alarm message editing and registration.

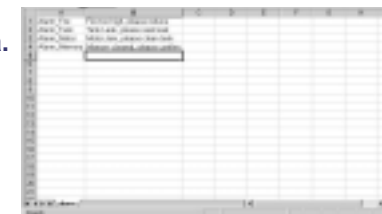
#### ◆ Version 4.0 allows easy editing and document control via CSV format data.

Using the CSV format, alarm files can be exported to the spreadsheet software such as MS-Excel®, where alarm messages can be added and edited more efficiently. Once this work is completed, these CSV format files can then be imported back to GP-PRO/PBIII for Windows as Alarm files.



Alarm Editor Screen

CSV Format



## Extended Logging/Filing/Programming Functions

### [Logging]

#### ◆ Improved data collection via "Looping"

When the acquired logging data exceeds the GP's memory capacity, data logging can continue by simply overwriting the previously acquired logging data. Also, logging data can be saved automatically to a CF Card with a simple setting.

### [D-Script]

Enhanced Data Editing and Functionality

- ◆ Memory Batch Copy
- ◆ Memory Block Initializatio
- ◆ Loop Processing
- ◆ Address Offset Designation

### [Filing]

#### ◆ Transferable data items are increased.

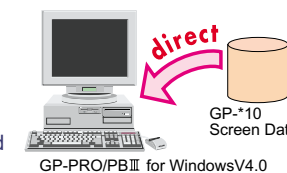
The number of data items that can be transferred at one time has been increased to 1000 words.

#### ◆ Multiple Data Filing Folders.

Multiple folders of filing data can be stored in both the CF-Card and the GP's internal memory.

#### GP-X10 Series screen data can be converted easily!

Up loaded from GP-X10 units to GP-PRO/PB for Windows V4.0 directly and converted for the later GP models.



## Expanded Range of Powerful Tools

### [Wide Variety Files of Images]

#### ◆ 270 of 64-color Part images are added for more sophisticated screens of your applications.



### [Useful Sound Messages]

#### ◆ Ready-to-use 270 message samples in the WAV format are provided.

- Alarm has occurred. Confirm status.
- Now opening entrance door.
- Starting operation.
- Temperature alarm.
- Careful - Now rotating.
- Return lowering elevator to upper limit position.
- Now raw materials available.
- This card cannot be used.
- Conveyor is operating.
- Add material to hopper.



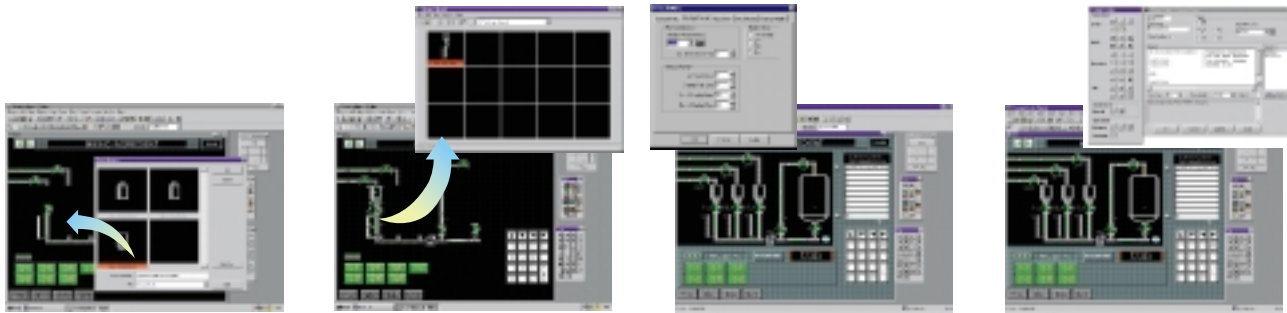
# GP-PRO/PBIII for Windows Features

## Efficient Screen Editing Saves You Time!

### Create Screens in Minutes

### High-level Functionality

### More Sophisticated Programming



#### 1 Parts Placement

Select from over 1800 pre-made Parts. Choose only the ones you need and place them on your screens.

#### 2 Libraries

Multiple objects can be grouped and registered for your own library.

#### 3 Tag Setup

A wide variety of user applications can be easily created using the Tag functions (active screen).

#### 4 D-Script

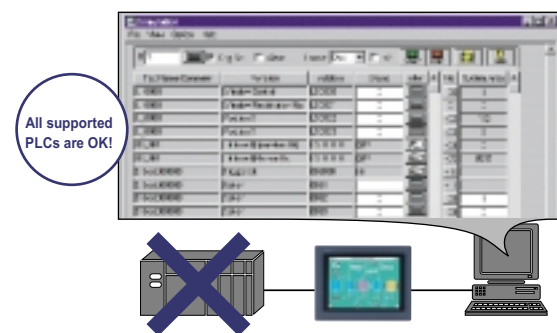
Easy to use Macro program reduces the host controller's programming load.

### Simulation

#### Reduces GP program debugging time

Even if you don't have a PLC available to test your new GP program, you can still quickly and easily check whether the program works as planned via this feature.

\*This feature is not available with Memory Link selection.



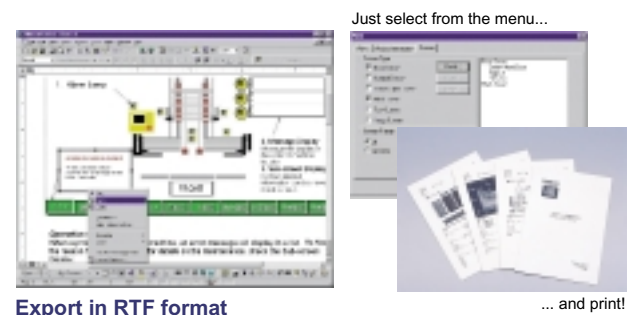
All supported PLCs are OK!

### Documentation

#### [Automatic Documentation]

Reduces time required for creating documents

Just by selecting the items you wish to print out, you can create specification and manual documents easily. You can also use this feature to export project data in RTF format.



Export in RTF format

... and print!

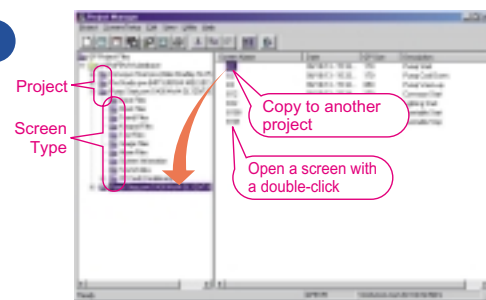
### File Management

#### [Project Manager]

Simplifies Project Screen Management

Screen data can be managed via individual screen files. In addition to moving or copying screen data, simply double-clicking on a file name allows you to edit that screen. You can also make data files sharable through your PC network.

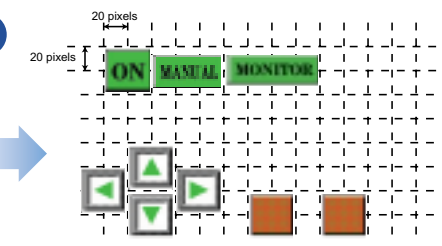
\* Individual data files cannot be opened by multiple PCs at the same time.



### High Resolution Touch Grid

#### Adjustable Switch Sizes and Layout

- Minimum Touch Switch Size: 20x20 pixels
- 1 or 2 point touch selectable



Switch size settings are freely adjustable, which allows more flexible screen layout.

### Parts

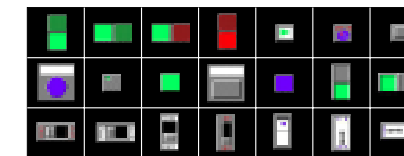
#### [1,800 Part to Choose]

Over 1800 parts and symbols are stored in the GP-PRO/PBIII library. Just select the ones you need and place them onto your application screens.

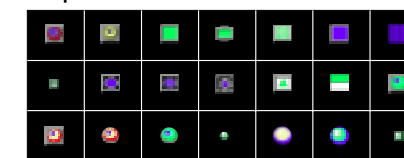


Touch/Switches/Lamps/Graphs/Numeric Displays/Picture Displays/Alarm Displays/Data Displays

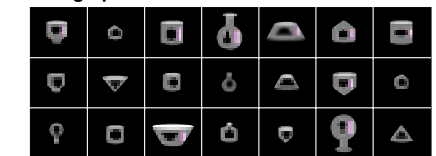
#### Switches



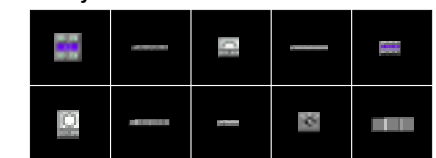
#### Lamps



#### tank graphs



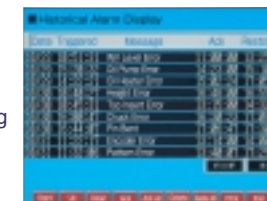
#### Library Parts



#### [Historical Alarm Display]

An easy way to troubleshoot machine problems!

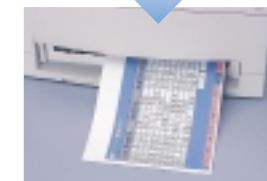
- Display Types: Active, Historic, Log
- Time format: hours, minutes, and even seconds\* can be displayed.
- \* Not supported by GP-270 Series.



#### ● Printout

Display screens can be easily printed out for daily reports.

\* Supported only by large-sized GP units  
GP377RT requires the Multi Unit E.



#### ● Data Storage

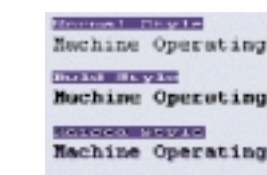
Alarm data can be backed up in GP's backup memory.

\* This feature is supported only by certain large-sized GP and GP377 series.

#### [Text Display]

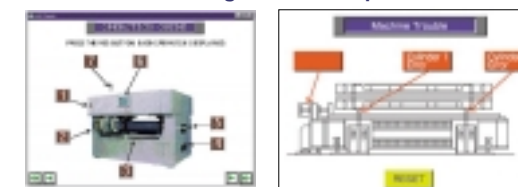
Multiple character sets supported

- Fonts: ASCII (English & European), Chinese, Japanese, Korean, and Taiwanese fonts
- Font Styles: Normal, Bold, Raised



#### [Image Display]

Photo and CAD images can be imported



BMP image display

DXF image display

#### ● Importable Files

DXF: Common file format for CAD and 3D screens

BMP: Image format for pictures from digital cameras or image scanners

#### [Alarm Summary]

Allows easy machine condition monitoring and fast maintenance



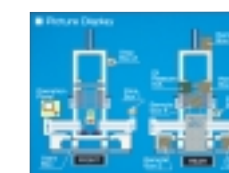
- Alarm Types: summary display, message scrolling
- Sub.Windows can be easily set up for detailed in matim

Sub-Window Image

Detailed information for an individual alarm message can be displayed in a sub-window. You can easily create an on-line manual for quick maintenance.

#### [Picture Display]

Enable to visualizes entire systems



- Graphics: Dot, Line, Polyline, Square/Rectangle, Fill, Polygon, Circle, Oval, Arc, Pie, Scale, Mark, ISO-7000 Mark Libraries
- Attributes: Lighted, blink, reverse, off

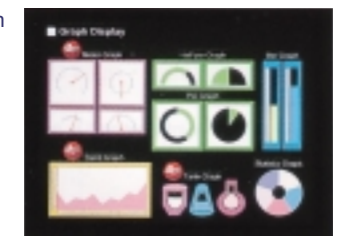
#### [Graph Display]

Various Types of Graphs to Visualize Important Data

- Data Format : 16-bit absolute/indirect data
- Data Display Format : Binary, BCD
- Warning Display : direct/indirect setup for maximum and minimum ranges

Graph Level Status by Colors  
Fill-Below-Line for Trend Graph  
Tank Graph (Library parts)  
Meter Graph (parts)\*

\* These features not supported by GP-270 Series

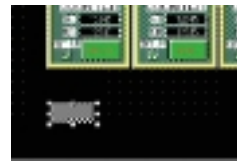




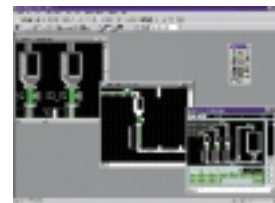
## Screen Editing

### [Duplicate Copy]

Specifying the number of columns and rows to be multiplied will allow you to easily make multiple copies of any object. Address incrementation can also be performed automatically.



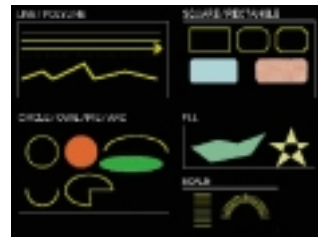
Duplicate Copy



Enlarging and Reducing Drawing Area

### [Object Drawing]

With a rich array of drawing tools, screens can be drawn quickly and easily – like CAD software.



### [Active Window]

- Up to 3 window screens can be displayed, a single base screen, all simultaneously displaying animated data.
- Global Window: (1/screen) A common window for all screens
- Local Window: (2/screen) Unique window display for each screen
- Screen overlay order can be changed with a touch

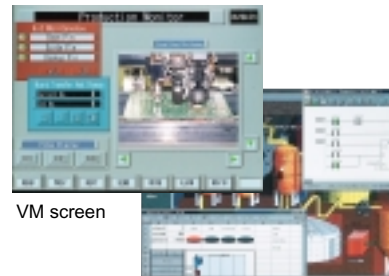


### [Video Display]

#### Video feeds provide live data

\* This feature is only supported by GP-570VM.

- Video Display Size: standard mode, zoom mode
- Transparent display of Video Window
- 3 NTSC video input channels
- VGA display (640 x 480 pixel)



VM screen

VGA screen

## Powerful Programming Tools

### [Tags]

Tags are used for the creation of your screen animation functions. 30 different tag functions have been prepared for the GP Series units. Combinations of these tags produce a wide variety of functionality, allowing you to expand the scope of your applications.

\* Depending on the GP models, supported Tag features vary.

#### Tag Features

Touch Switch	Alarm Summary
<touch panel input>	<alarm summary text display>
<keyboard setup>	<alarm summary display>
<selector switch input>	Alarm Message Display
<inching function>	Graphic Display
Numeric Display	<object drawing>
<numeric display>	<library display>
<static data display>	<library status display>
<alarm boundary display>	<mark display>
Graph Display	Animated Objects
<graph display>	<free library display>
<static graph display>	<moving mark display>
<static data display>	<rail settings>
Trend Graph Display	Character Display
Setting Input	<string display>
<key input>	<display text data>
<keyboard setup>	Time Display
<alarm boundary>	<time display>
	Device Write
	<write to device>
	Window Display
	<window display>
	Video Window Display
	<video window display>

### ["D-Script"—Macro Programming Language]

Implement a variety of simple control tasks with this powerful tool

Features include:

- Math: +, -, \*, /, Remainder, Assign
- Boolean: AND, OR, NOT, <,<=,>,>=, EQUAL, NOT EQUAL
- Triggers: Timer settings, Bit Rising, Bit Falling, when expression becomes True/False
- Functions: Load screen, Draw

\* Some of the above features are not supported by GP-270 Series units.

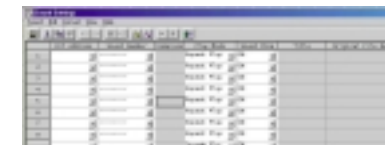


## A Wide Range of Supported Data Formats

### Sound Output Function

An optional unit allows WAV format files (i.e. sound, alarm) to be imported to the GP, and played through an external speaker. This feature can be used in a variety of applications, such as multi-media, and machine operator information.

\* Multi Unit E required available with GP-477R / 577R



### CF Card Support (Compact Flash)

#### Filing CSV data

Trend data, sampling data and alarm active/history/log data can all be exported to the CF card using the CSV file format. Database and spread sheet applications can then easily import this data for information management and processing.

#### Screen Data Storage

A Screen project on GP unit can be copied on a CF card for maintenance purpose. Prior to copying the project to another GP unit system, set up on the GP unit is required.

#### Memory Expansion on CF card.

In addition to the internal memory on GP unit, following data can be stored for GP operation :

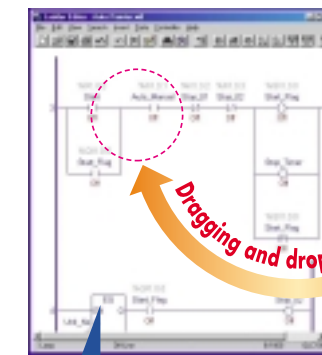
- Filing Data
- Logging Data
- Sampling Data
- Trend Graph Data
- Alarm Data
- Image Data
- Sound Data
- Screen Project Data

\* Multi Unit E required

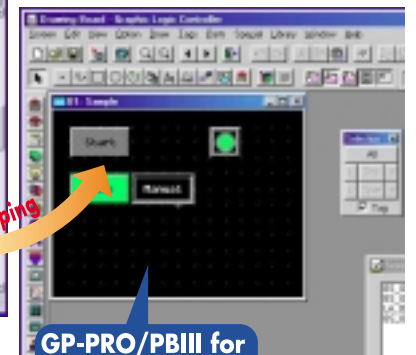
## Dynamic Link between Operations and Control

- Simple input/output operations can be performed by merely dragging and dropping. You need no knowledge of programming.

All the data required for the parts on the screen (addresses, name plates, and names) are automatically passed by dragging and dropping the corresponding symbols created on the ladder over the screens of the GP-PRO/PBIII for Windows. You no longer need to prepare detailed design specifications to notify addresses. This allows for implementing the true integration of display and control features, increasing the work efficiency greatly, and reducing the number of processes significantly.

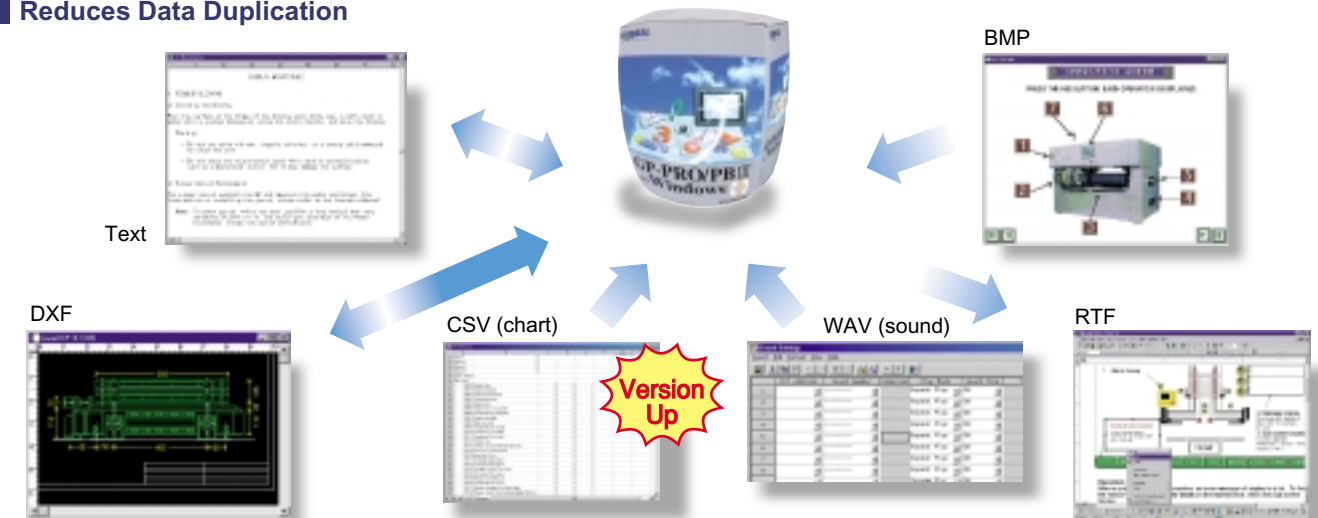


Pro-Control Editor V2.0 (under Development)



GP-PRO/PBIII for Windows V4.0

### Universal File Format Support Reduces Data Duplication



Screen Data from all previous GP Series can be converted to the latest models, also.



# Fieldbus Network and Peripheral Connections

## Direct Connection to Field Network

**[Profibus-DP]**  
Profibus-DP I/F Unit (GP070-PF11)

Max.Baud Rate	12Mbps
Max.Node	64
Max.I/O	IN:64 Words OUT:64 Words

[Units Supported]  
SIEMENS  
SIMATIC S7-300/400 Series, as well as other Profibus-DP supporting PLCs.

**[DeviceNet]**  
Device Net Unit (GP070-DN41)

Max.Baud Rate	500kbps
Max.Node	64
Max.I/O	IN: 127 Words OUT: 127 Words

**[Interbus]**  
Interbus Unit (GP070-IB41)

Max.Baud Rate	500kbps
Max.Node	512
Max.I/O	IN:64 Words OUT:64 Words

**[Ethernet]**  
GP Ethernet I/F Unit <10-Base-T> (GP070-ET41)

**[CC-Link]**  
CC-Link I/F Unit (GP070-CL11)

Max.Baud Rate	10Mbps
Max.Node	64
Max.I/O	IN: 128 Bits OUT: 128 Bits

[Units Supported]  
Mitsubishi Electric Corp. PLC  
MELSEC A Series  
MELSEC QnA Series

**[T-Link]**  
T-Link I/F Unit (GP450-ZB21)

Max.Baud Rate	500kbps
Max.Node	64

[Units Supported]  
Fuji Electric Co., Ltd.  
MICREX-F Series PLCs

\* The above communication interface modules are only for GP-470 or larger units.

## Additional Fieldbus Network Units Supported:

Fieldbus	Module *1	GP Model
AB Remote I/O	QPI-ABR-201	GP47*/57* series GP470/570,GP477R/577R Series
	QPJ-ABR-201	GP270/370 series
AB DH+	QPI-ABD-201	GP47*/57* series GP470/570,GP477R/577R Series
	QPJ-ABD-201	GP270 series
ModbusPlus	QPI-MDP-201	GP47*/57* series GP470/570,GP477R/577R Series
	QPJ-MDP-201	GP270 series

\*1 Manufactured by Total Control Products, Inc.

## Interfaces

### [Peripheral Device Connections]

#### ● Direct Connection to Various Networks

Communication Module Interface

Direct connection to various Field networks becomes possible by attaching communication modules.

#### ● Real-time Operation

Auxiliary Input / Output (AUX)

From the touch panel, you can send information to the PLC or to a machine's DIO I/F in real time.

(Touch output: 8 points; system alarm output: 1-point; buzzer output: 1-point; RUN output: 1-point; remote reset: 1-point)

\* Only supported by GP-47\* or larger units

#### ● Communication with a Host Controller

Serial (SIO) Interfaces

A single cable is all you need for host communication, reducing maintenance time.

#### ● Connecting to a Color Printer

Printer Interface

You can printout GP screens while in RUN mode. Alarm history data, including trigger/recovery times can also be printed.

#### ● Screen Data Transfer

Tool Connector

This interface is used for transferring screen data created by GP-PRO/PB Series. Also, you can connect a bar-code reader to the GP.

#### ● PC Screen Data

VGA Input Interface

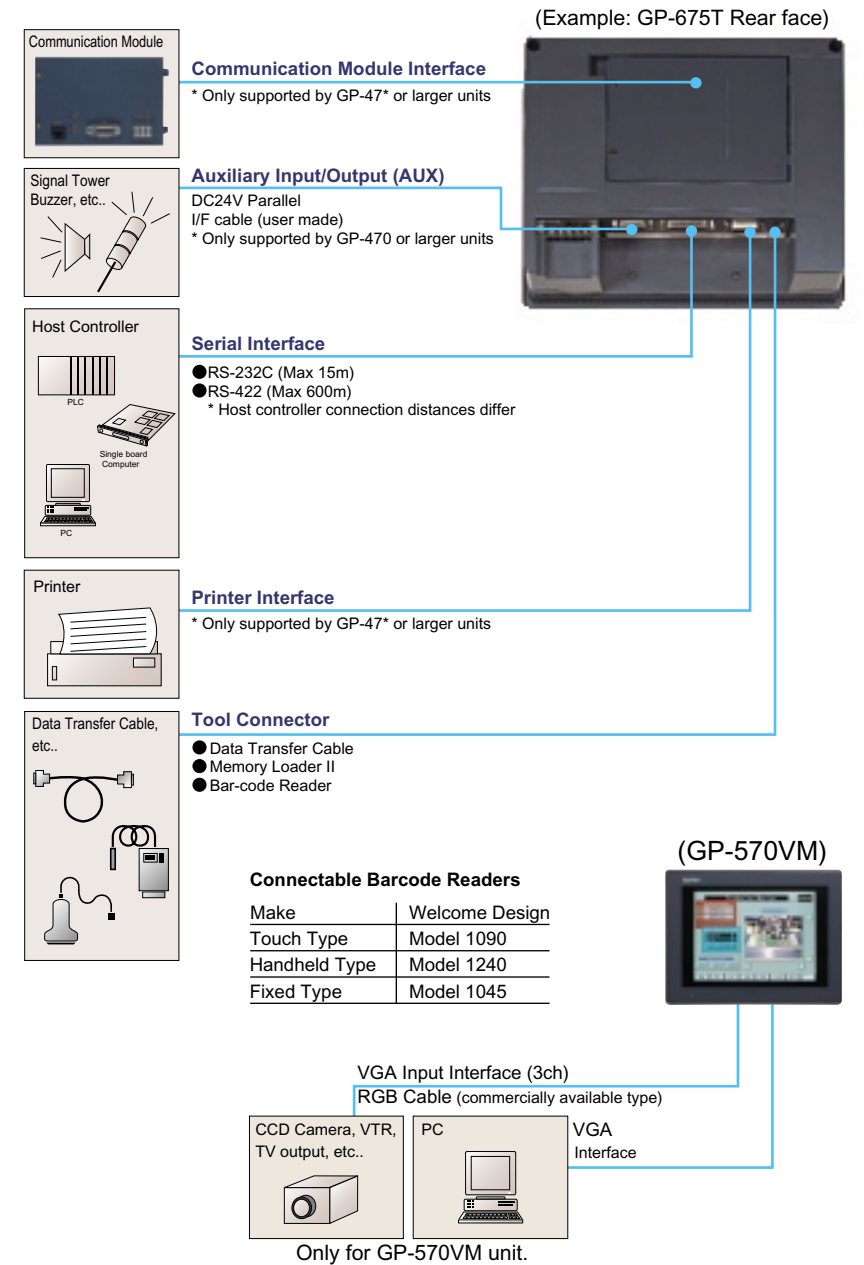
Your PC's VGA screen can be displayed on GP-570VM unit.

#### ● Video Display from Cameras and Recorders

NTSC Video Input Interface (3 channels)

NTSC Video images can be displayed in a window on certain GPs. Window display size and position can be changed, in addition to zooming and channel switching, from touch panel operation or host controller.

(These features are only supported by GP-570VM unit.)



**18**  
**GP SERIES**  
Programmable Operator Interface



# Global Safety Standard Compliant Products

## GP77 Series



GP-577RT



GP-577RS



GP-477RE



GP-377RT



GP-377S



GP-377L

## GP70 Series 9"/10.4"/12.1"



GP-675T



GP-675S



GP-571T



GP-570VM



GP-570T



GP-570S



GP-470E

## GP 70 Series 5"/6"



GP-370S  
GP-370L



GP-270S  
GP-270L



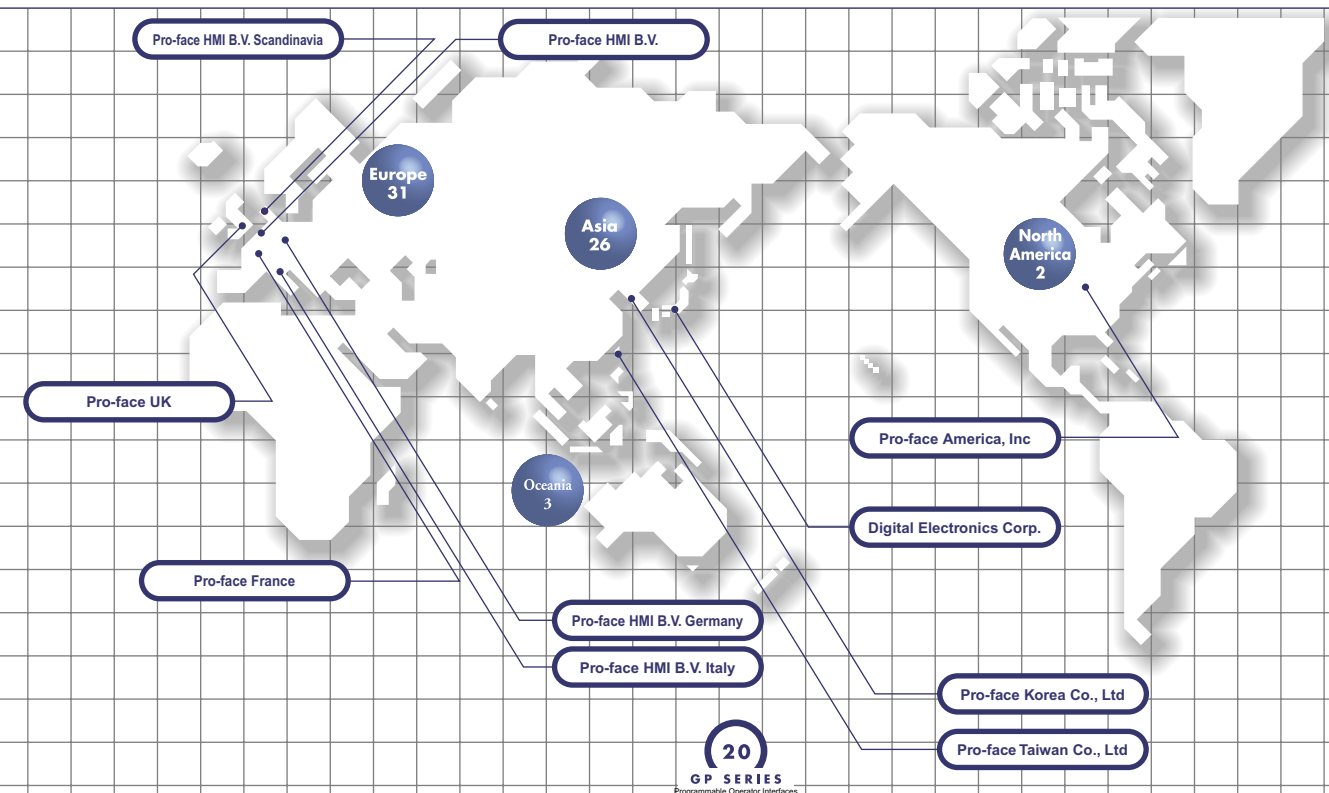
GP-H70S



GP-H70L

		CE	CE Marked Units	UL/c-UL	Approved Units
12.1"	GP675T GP675S GP577RT GP577RS GP571T GP570VM GP570T GP570S				
10.4"	GP477RE GP470E GP377RT GP377S GP377L GP370S GP370L				
9"	GP270S GP270L GP-H70S GP-H70L				
6"					
5"					

## Global Support Network



Functional Specifications(GP77 Series Units)

		Model							
Item		GP577R-TC11 GP577R-TC41-24VP		GP577R-SC11		GP477R-EG11 GP477R-EG41-24VP			
		GP377R-TC11-24V GP377R-TC41-24V		GP377R-TC11-24V GP377R-TC41-24V		GP377-SC11-24V GP377-SC41-24V			
		GP377-LG11-24V GP377-LG41-24V							
Display	Type	TFT Color LCD		STN Color LCD		High Intensity EL			
	Colors	64 colors (Tiling patterns make blends of colors possible)			Amber		64 colors (Tiling patterns make blends of colors possible)		
	Backlight	CCFL (under normal temperatures and humidity, lifespan = more than 40,000) User replaceable		CCFL (under normal temperatures and humidity, lifespan = more than 25,000) User replaceable		_____			
	Resolution	640 x 480 pixels			640 x 400 pixels		320 x 240 pixels		
	Nominal Display Area	211.2mm(W) x 158.4mm(H)			192mm(W) x 120mm(H)		115.2mm(W) x 86.4mm(H)		
	Attributes	Blink/ Reverse Video							
	Brightness Control	4 levels (via touch panel)			2 levels (via touch panel)		4 levels (via touch panel)		
	Contrast Control	_____		8 levels (via touch panel)		_____		8 levels (via touch panel)	
	Language Fonts	ASCII: (Code Page 850) Alphanumeric (incl. European fonts) *1 Chinese: (GB2321 – 80 codes) simplified Chinese fonts Japanese: ANK 158 type, Kanji: 6962 (Standard JIS Type 1 & 2) Korean: (KSC5601 – 1992 codes) Hangul font Taiwanese: (Big 5 codes) traditional Chinese fonts							
	No. of Char. Display	8 x 8 dot font	80 characters per row, 60 rows		80 characters per row, 50 rows		40 characters per row, 30 rows		
		8 x 16 dot font	80 characters per row, 30 rows		80 characters per row, 25 rows		40 characters per row, 15 rows		
		16 x 16 dot font	40 characters per row, 30 rows		40 characters per row, 25 rows		20 characters per row, 15 rows		
Font Sizes	Character Size: Height and width can be expanded 1, 2, 4, or 8								
Application Memory		2MB FLASH EPROM				1MB FLASH EPROM			
Touch Panel (Resistive Film)		32 x 24Keys/ screen; 1 or 2 point touch		32 x 20Keys/ screen; 1 or 2 point touch		16 x 12Keys/ screen; 1 or 2 point touch			
Interfaces	Serial	Asynchronous transmission method: RS-232C/ RS-422 Data length: 8/7 bits: 2/1 bits; stop bits: 2/1 bits; Parity: None/ Even/ Odd; Data Transmission Rate: 2400bps to 115.2kbps							
	Tool Connector	Asynchronous Transmission Method, TTL level, non-procedural command interface [during screen development] used for transferring application screen data [during RUN mode] used as Bar-code Reader or built-in 2-port function interface							
	Auxiliary Input/ Output(AUX)	Touch switch output (inching) System alarm output Buzzer output Run output		DC24V x 8 points DC24V x 1 point DC24V x 1 point DC24V x 1 point		_____			
	Printer Output	Conforms to Centronix (HP LaserJet PCL4 compatible, NEC PR Series, EPSON ESC/P or equivalent)					_____		

General Specifications

Model		GP577R-TC11	GP577R-SC11	GP477R-EG11	GP577R-TC41-24VP	GP477R-EG41-24VP	GP377R-TC11-24V GP377R-TC41-24V	GP377-SC11-24V GP377-SC41-24V	GP377-LG11-24V GP377-LG41-24V	
Electrical	Input voltage	AC85V to AC132V 50/60Hz			DC 20.4V to DC 27.6V					
	Power Consumption	50VA or less			50W or less (TYP 20W)		20W or less (TYP 13W)			
	Allowable Voltage Drop	Up to 20 ms			Up to 2 ms					
	Voltage Endurance	AC 1500V -20mA 1 minute			AC 1000V -10mA 1 minute (between charging and FG terminals)					
	Insulation Resistance	Above 10MΩ at DC500V (between charging and FG terminals)					Above 10MΩ at DC500V (between charging and FG terminals)		Above 20MΩ at DC500V (between charging and FG terminals)	
	Ambient Operating Temperature	0°C to 40°C	0°C to 50°C	0°C to 40°C	0°C to 50°C	0°C to 40°C	0°C to 50°C			
	Ambient Storage Temperature	-10°C to 60°C							-20°C to 60°C	
Environmental	Ambient Humidity	30 to 85%RH (non-condensing)	20 to 85%RH (non-condensing)	30 to 85%RH (non-condensing)	20 to 85%RH (non-condensing)					
	Vibration Resistance	10 to 25 Hz (X, Y, Z directions 30 minutes each 2G)								
	Noise Immunity (via noise simulator)	Noise voltage: 1200 Vp-p Pulse length: 1 μs; Arise Time: 1ns			Noise voltage: 1000Vp-p; Pulse length: 1 μs; Arise Time: 1ns					
	Atmosphere	Must not contain corrosive gas								
	Rating	Equivalent to IP65f (Limited to front face of GP installed in panel)								
Structural	External Dimensions	317mm(W) x 243mm(H) x 85mm(D) (GP unit only)	274mm(W) x 216mm(H) x 56.5Dmm(D) (GP unit only)	317mm(W) x 243mm(H) x 85Dmm(D) (GP unit only)	274mm(W) x 216mm(H) x 56.5Dmm(D) (GP unit only)	171 mm(W) x 138mm(H) x 57mm(D) (GP unit only)				
	Weight	Less than 3.5 kg (GP unit only)	Less than 2.5 kg (GP unit only)	Less than 3.5 kg (GP unit only)	Less than 2.5 kg (GP unit only)	Less than 0.95kg (GP unit only)				
	Cooling Method	Natural air circulation								

\*1 Japanese character input requires the Japanese version screen editor software.

Functional Specifications (10.4" and 12.1" Display )

Items		Model	GP570-TV11	GP675-TC11 GP675-TC41-24VP	GP675-SC11
Display	Type		TFT Color LCD		STN Color LCD
	Colors		8 colors (white, red, blue, green, yellow, purple, light blue, black) Tiling patterns make blends of colors possible	64 colors (Tiling patterns make blends of colors possible)	
	Backlight		CCFL (under normal temperatures and humidity, lifespan = 20,000 hours) User replaceable	CCFL (under normal temperatures and humidity, lifespan = 25,000 hours) User replaceable	CCFL (under normal temperatures and humidity, lifespan = 25,000 hours) Non-replaceable by user.
	Resolution		640 x 480 pixels	800 x 600 pixels	
	Nominal Display Area		211mm(W) x 158mm(H)	246mm(W) x 184.5mm(H)	
	Features		Blink / Reverse Video		
	Contrast Adjustment		_____		8 levels from touch panel
	Language Fonts		ASCII: (Code Page 850) Alphanumeric (incl. European fonts) *1 Chinese: (GB2321 – 80 codes) simplified Chinese fonts Japanese: ANK 158 type, Kanji: 6962 (Standard JIS Type 1 & 2) Korean: (KSC5601 – 1992 codes) Hangul font Taiwanese: (Big 5 codes) traditional Chinese fonts		
	No. of Char. Display	8 x 8 dot font	80 characters per row, 60 rows	100 characters per row, 75 rows	
		8 x 16 dot font	80 characters per row, 30 rows	100 characters per row, 37 rows	
		16 x 16 dot font	40 characters per row, 30 rows	50 characters per row, 37 rows	
Font Sizes		Character Size: Height and Width can be expanded 1, 2, 4, or 8 times.			
Application Memory		1MB FLASH EPROM	2MB FLASH EPROM		
Touch Panel (Resistive Film)		32 x 24 keys/ screen; 1 or 2 point touch	40 x 30 keys/ screen; 1 or 2 point touch		
Interfaces	Serial		Asynchronous transmission method: RS-232C/ RS-422; Data length: 8/7 bits; stop bits: 2/1 bits; Parity: None/ Even/ Odd; Data Transmission Rate: 2400 to 38400 bps		
	Tool Connector		Asynchronous Transmission Method, TTL level, non-procedure command interface <during screen development> used for downloading application screens <during RUN mode> used as Bar-code Reader interface		
	Auxiliary Input / Output(AUX)		Touch Switch Output: DC24V x 8 points; System Alarm Output: DC24V x 1 point; Buzzer Output: DC24V x 1 point RUN Output: DC24V x 1 point; Remote Reset Input: DC24V x 1 point		
	Printer Output		Conforms to Centronix (HP LaserJet PCL4 compatible, NEC PR Series, EPSON ESC/P or equivalent)		

General Specifications

Items		Model	GP570-TV11	GP675-TC11 GP675-TC41-24VP	GP675-SC11
Electrical	Input Voltage		AC85 to AC132V 50/60Hz	GP675-TC11: AC85 to AC132V 50/60Hz GP675-TC41: DC19.2V to DC28.8V	AC85 to AC132V 50/60Hz
	Power Consumption		50VA or less	GP675-TC11: 50W or less GP675-TC41: 50VA or less	50VA or less
	Allowable Voltage Drop		Up to 20ms	GP675-TC11: Up to 20 ms GP675-TC41: Up to 2 ms	Up to 20ms
	Voltage Endurance		AC1500V 20mA 1minute (between charging and FG terminals)	GP675-TC11: AC1500V 20mA 1minute GP675-TC41: AC1000V 10mA 1minute (between charging and FG terminals)	AC1500V 20mA 1minute (between charging and FG terminals)
	Insulation Resistance		Above 10MΩ at DC500V (between charging and FG terminals)		
Environmental	Operation Temperature		0°C to 40°C		
	Storage Temperature		-10°C to 60°C		
	Ambient Humidity		30 to 85% RH (non-condensing)		
	Vibration Resistance		10 to 25 Hz (X,Y,Z directions 30 minutes 2G)		
	Noise Immunity (via noise simulator)		Noise voltage: 1200Vp-p(GP675-TC41:1000Vp-p) Pulse length: 1 μs Arise Time: 1ns		
	Atmosphere		Must not contain corrosive gas		
Structural	Rating		Equivalent to IP65f (Limited to front face of GP installed in panel)		
	External Dimensions		317mm(W) x 243mm(H) x 85mm(D) (GP only)	346mm(W) x 272mm(H) x 81mm(D) (GP only)	
	Weight		Less than 3.5kg (GP only)	Less than 3.8Kg (GP only)	
	Cooling Method		Natural Air Circulation		

VM Display Specifications

Model		GP570-TV11
Items	Display Colors	32768 colors
Video Display	Input Channels	3 channels
	Transmission Method	NTSC
	Number of Video Screens	1 (size, location, and channel are adjustable)
	Color Control	tone, brightness, and contrast
	Special Features	still (freezes video display), transparent color settings, and zoom
Input Signal Method		Analog RGB
Input Signal Characteristic	Synchronous Signal	TTL level, negative true or positive true
	Scanning Type	Non-interlaced
Adjustment Controls	Flicker	8 level
	Brightness	4 level
	Horizontal Display Positioning	-16 to 15 pixels
	Vertical Display Positioning	-8 to 7 pixels
Resolution		640 x 480 pixels
Dot-clock Range		25.175 MHz +/- 1%

\*1 Japanese character input requires the Japanese version screen editor software.



Functional Specifications

Items			Model	GP571-TC11	GP570-TC**	GP-570-SC**	GP570-LG**	GP470-EG**
Display Functions	Type		TFT Color LCD			STN Color LCD	Monochrome LCD	High Intensity EL
	Color		64 colors (Tiling patterns make blends of colors possible)	8 colors (white, red, blue, green, yellow, purple, light blue, black) Tiling patterns make blends of colors possible			black and white	Amber (monochrome)
	Backlight		CCFL (under normal temperatures and humidity, lifespan = 20,000 hours) *1 User replaceable.				CCFL (under normal temperatures and humidity, lifespan = 25,000 hours) Non-replaceable by user.	_____
	Resolution		640 x 480 pixels					640 x 400 pixels
	Nominal Display Area		211mm(W) x 158mm(H)					192mm(W) x 120mm(H)
	Features		Blink/ Reverse Video					
	Brightness Control		_____					2 levels from touch panel
	Contrast Control		_____			8 levels from touch panel		_____
	Language Fonts		ASCII: (Code Page 850) Alphanumeric (incl. European fonts) *1 Chinese: (GB2321 – 80 codes) simplified Chinese fonts Japanese: ANK 158 type, Kanji: 6962 (Standard JIS Type 1 & 2) Korean: (KSC5601 – 1992 codes) Hangul font Taiwanese: (Big 5 codes) traditional Chinese fonts					
	No. of Char. Display	8x8 dot font	80 characters per row, 60 rows					80 characters per row, 50 rows
		8x16 dot font	80 characters per row, 30 rows					80 characters per row, 25 rows
		16x16 dot font	40 characters per row, 30 rows					40 characters per row, 25 rows
Font Size		Character Size: Height and Width can be expanded 1, 2, 4, or 8 times.						
Application Memory			3MB FLASH EPROM	1MB FLASH EPROM				
Touch Panel (Resistive Film)			32 x 24 keys/ screen; 1 or 2 point touch					32 x 20 keys/ screen; 1 or 2 point touch
Interfaces	Serial		Asynchronous transmission method: RS-232C/ RS-422; Data length: 8/7 bits; stop bits: 2/1 bits; Parity: None/ Even/ Odd; Data Transmission Rate: 2400 to 38400					
	Tool Connector		Asynchronous Transmission Method, TTL level, non-procedure command interface <during screen development> used for downloading application screens <during RUN mode> used as Bar-code Reader interface					
	Auxiliary Input / Output(AUX)		Touch Switch Output: DC24V x 8 points; System Alarm Output: DC24V x 1 point; Buzzer Output: DC24V x 1 point RUN Output: DC24V x 1 point; Remote Reset Input: DC24V x 1 point					
	Printer Output		Conforms to Centronix (HP LaserJet PCL4 compatible, NEC PR Series, EPSON ESC/P or equivalent)					

General Specifications

Items		Model		GP571-TC11	GP570-TC**	GP570-SC**	GP570-LG**	GP470-EG**
Electrical	Input Voltage		AC85 to AC132V 50/60 Hz	GP570-*C11: AC85 to AC132V 50/60Hz GP570-*C21/ *C31: DC19.2 to DC28.8V		DC19.2 to DC28.8V		GP470-EG11: AC85 to AC132V 50/60Hz GP470-EG21/ EG31: DC19.2 to DC28.8V
	Power Consumption		50VA or less	GP570-*C11: 50VA or less GP570-*C21/ *C31: 50W or less		50W or less		GP470-EG11: 50VA or less GP470-EG21/ EG31: 50W or less
	Allowable Voltage Drop		Up to 20ms	GP570-*C11: Up to 20ms GP570-*C21/ *C31: Up to 2ms		Up to 2ms		GP470-EG11: Up to 20ms GP470-EG21/ EG31: Up to 2ms
	Voltage Endurance		AC1500V 20mA 1 minute (between charging and FG terminals)	GP570-*C11: AC1500V 20mA 1 minute GP570-*C21/ *C31: AC1000V 10mA 1 minute (between charging and FG terminals)		AC1000V 10mA 1 minute (between charging and FG terminals)		GP470-EG11: AC1500V 20mA 1 minute GP470-EG21-24VP/ EG31-24VP: AC1000V 10mA 1 minute (between charging and FG terminals)
	Insulation Resistance		Above 10MΩ at DC500V (between the live wire and ground terminals)					
Environmental Specifications	Operation Temperature		0°C to 40°C				0°C to 50°C	
	Storage Temperature		-10°C to 60°C					
	Ambient Humidity		30 to 85% RH (non-condensing)				20 to 85% RH (non-condensing)	
	Vibration Endurance		10 to 25 Hz (X,Y,Z directions 30 minutes 2G)					
	Noise Endurance		Noise voltage: 1200Vp-p; Pulse length: 1 μs; Arise Time: 1ns	Noise voltage: GP570-*C11: 1200Vp-p, GP570-*C21-24VP/ *C31-24VP: 1000Vp-p; Pulse length: 1 μs; Arise Time: 1ns	Noise voltage: 1000Vp-p; Pulse length: 1 μs; Arise Time: 1ns	Noise voltage: GP470-EG11: 1200Vp-p, GP470-EG21-24VP/ EG31-24VP: 1000Vp-p; Pulse length: 1 μs; Arise Time: 1ns		
	Atmosphere		Must not contain corrosive gas					
Structural Specifications	Rating		Equivalent to IP65f (Limited to front face of GP installed in panel)					
	External Dimensions (mm)		317mm(W) x 243mm(H) x 85mm(D) (GP only)				274mm(W) x 216mm(H) x 56.5mm(D) (GP only)	
	Weight		Less than 3.5Kg (GP only)				Less than 2.5Kg (GP only)	
		Cooling System	Natural Air Circulation					

\*1 With GP570-TC21-24VP units that are Rev. E or later, the estimated lifetime of the backlight is 40,000 hours (assuming 24 hour operation).  
\*2 Japanese character input requires the Japanese version screen editor software.

Functional Specifications (Medium Size Display Units)

Items			Model	GP370-SC**-24V*	GP370-LG**-24V*	GP270-SC**-24V*	GP270-SC**-24V*	GPH70-SC**-24V	GPH70-LG**-24V
Display Functions	Type		STN Color LCD	Monochrome LCD	STN Color LCD	Monochrome LCD	STN Color LCD	Monochrome LCD	
	Color		8 colors (white, red, blue, green, yellow, purple, light blue, black) Tiling patterns make blends of colors possible	black and white	8 colors (white, red, blue, green, yellow, purple, light blue, black) Tiling patterns make blends of colors possible	black and white	8 colors (white, red, blue, green, yellow, purple, light blue, black) Tiling patterns make blends of colors possible	black and white	
	Backlight		CCFL (under normal temperatures and humidity, lifespan = 20,000 hours) User replaceable.					CCFL (under normal temperatures and humidity, lifespan = 25,000 hours) Non-replaceable by user.	
	Resolution		320 x 240 pixels						
	Nominal Display Area		115mm(W) x 86mm(H)		96mm(W) x 72mm(H)		115mm(W) x 86mm(H)		
	Features		Blink/ Reverse Video						
	Brightness Control		2 levels from touch panel		_____				
	Contrast Control		8 levels from touch panel						
	Language Fonts		ASCII: (Code Page 850) Alphanumeric (incl. European fonts) *1 Chinese: (GB2321 – 80 codes) simplified Chinese fonts Japanese: ANK 158 type, Kanji: 6962 (Standard JIS Type 1 & 2) Korean: (KSC5601 – 1992 codes) Hangul font Taiwanese: (Big 5 codes) traditional Chinese fonts						
	No. of Char. Display	8x8 dot font	40 characters per row, 30 rows						
		8x16 dot font	40 characters per row, 15 rows						
		16x16 dot font	20 characters per row, 15 rows						
Font Size		Character Size: Height and Width can be expanded 1, 2, 4, or 8 times.							
Application Memory			1MB FLASH EPROM		256KB FLASH EPROM		1MB FLASH EPROM		
Touch Panel (Resistive Film)			16 x 12 keys/ screen; 1 or 2 point touch						
Function Keys			_____					12	
Operation Switches			_____					One is located on the back of the case; the other is the front face's function switch (OP.) key	
Push Button Switch			_____					Push-Lock (E-Stop) type switch	
Interfaces	Serial		Asynchronous transmission method: RS-232C/ RS-422; Data length: 8/7 bits; stop bits: 2/1 bits; Parity: None/ Even/ Odd; Data Transmission Rate: 2400~38400 bps						
	Tool Connector		RS-232C Asynchronous Transmission Method, TTL level, non-procedure command interface <during screen development> used for downloading application screens <during RUN mode> used as Bar-code Reader interface						
	External Outputs		_____					DOUT: Two-point Open Controller: 5~24VDC, 50mA max OP. : One-point Controller: 5~24VDC, 50mA max Buzzer: One-point Controller: 5~24VDC, 0.1~0.3A Push-Lock Switch: Single B-contact, rated 30V DC, 0.3A	

General Specifications

Items		Model		GP370-SC**-24V*	GP370-LG**-24V*	GP270-SC**-24V*	GP270-SC**-24V*	GPH70-SC**-24V	GPH70-LG**-24V
Electrical	Input Voltage		DC20.4V to DC27.6V						
	Power Consumption		20W or less (TYP10W)		12W or less (TYP8W)		12W or less (TYP10W)		
	Allowable Voltage Drop		UP to 2ms						
	Voltage Endurance		AC1000V 10mA 1 minute (between the live wire and ground terminals) *2						
	Insulation Resistance		Above 20MΩ at DC500V (between the live wire and ground terminals)						
Environmental Specifications	Operation Temperature		0°C to 50°C				0°C to 40°C		
	Storage Temperature		-20°C to 60°C						
	Ambient Humidity		20 to 85% RH (non-condensing)						
	Vibration Endurance		10 to 25 Hz (X,Y,Z directions 30 minutes 2G)						
	Noise Endurance		Noise voltage: 1000Vp-p; Pulse length: 1 μs; Arise Time: 1ns						
	Atmosphere		Must not contain corrosive gas						
Structural Specifications	Rating		Equivalent to IP65f (Limited to front face of GP installed in panel)				Equivalent to IP63		
	External Dimensions (mm)		171mm(W) x 138mm(H) x 57mm(D) (GP only)		172mm(W) x 127mm(H) x 58mm(D) (GP only)		237mm(W) x 173mm(H) x 52mm(D) (GP only)		
	Weight		Less than 0.9Kg (GP only)		Less than 0.8Kg (GP only)		Less than 0.87Kg (GP only)		
		Cooling System	Natural Air Circulation						

\*1 Japanese character input requires the Japanese version screen editor software.  
\*2 With GPH70-\*\*41-24V units, the allowable power failure is AC500V, 10mA for 1 minute.

## Optional Items

Item	Screen Editor Software GP-PRO/PBⅢ for Windows	2 Way Communicator Pro-Server with Pro-Studio for Windows	Data Transfer Cable	Memory LoaderⅡ (Memory card included)
Catalog code	GPW-PB01M-V40	PSW-ED01-V20	GPW-CB02	GP070-LD01-O
Item	for PLC communication RS-232C Cable (5m)	for PLC communication RS-422 Cable (5m)	for GP-H70 Series RS-232C Cable (3m)	for GP-H70 Series RS-422 Cable (3m)
Catalog code	GP410-IS00-O (some PLCs require a different cable)	GP230-IS11-O GP230-IS12-O (For Multi-link)	GPH70-C232-O	GPH70-C422-O
Item	useful for multi-link connection RS-422 Connector Terminal Exchange Adapter	for easy debugging Mitsubishi PLC A Series /QnA Series FX Series 2 Port Adapter Ⅱ	RS-422 Cable for 2 Port Adapter Ⅱ	
Catalog code	GP070-CN10-O	GP070-MD11	GP070-MDCB11	
Item	direct connection to programming port Mitsubishi A Series PLC Programming I/ F Cable (5m)	direct connection to programming port Mitsubishi FX Series PLC Programming I/ F Cable (5m)	direct connection to programming port Siemens S5 Series PLC Programming I/ F Cable (5m)	
Catalog code	GP430-IP10-O	GP430-IP11-O	GP000-IS11-O	
Item	connector type RS-232C Cable for GP-H70 Series With D-SUB connector (3m)	for GP-H70 RS-232C Conversion Adapter	connector type RS-422 Cable for GP-H70 Series With D-SUB connector (3m)	for GP-H70 RS-422 Conversion Adapter
Catalog code	GPH70-D232	GPH70-AP232-O	GPH70-D422	GPH70-AP422-O
Item	CF Card	CF Card Front Maintenance Unit	Protective Screen Cover	
Catalog code	GP077-CF10 (8MB) GP077-CF20 (16MB)	GP070-CFFM10 (Under development)	GP370-DC10	
Item	Cover Sheets	Backlight Bulbs	User's Manual	
Catalog code	Soft type 10 sheets / set GP570-COVER-10P GP470-COVER-10P GP570/577-COVER-10P GP470/477-COVER-10P 20 sheets / set GP370-COVER-20P GP270-COVER-20P	Hard type 5 sheets / set GP675-DF10-O GP570-DF10-O GP470-DF10-O GP570/577-DF10 GP470/477-DF10 10 sheets / set GP370-DF10-O GP270-DF10-O GPH70-DF10-O	GP675S-BL00-MS GP675T-BL10-MS GP570-BL00-MS *1 GP577RT-BL00-MS GP370-BL00-MS GP270-BL00-MS  *1 With GP570-TC21-24VP units that are Rev. E or later, use backlight model: GP577RT-BL00-MS	
			GP-H70(S/L) GP-270(S/L) GP-370(S/L) GP-470E GP-570(T/S/L) GP-571T GP-675T GP-477R/577R GP-377R GP-377(S/L)	
			GPH70-MM11-STD-ENG GP270-MM11-ENG GP370-MM11-ENG GP470/570-MM21-ENG GP470/570-MM21-ENG GP470/570-MM21-ENG GP675-MM21-ENG GP477R/577R-MM11-ENG GP377R-MM11-ENG GP377-MM11-ENG	

## Operation Environment for Software

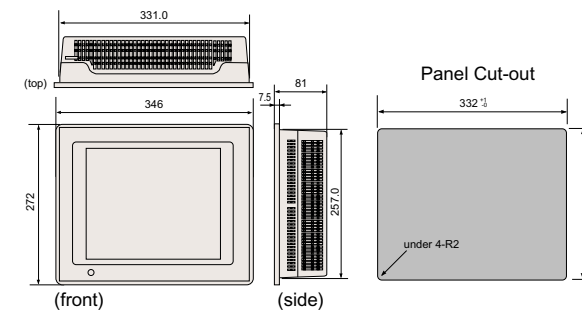
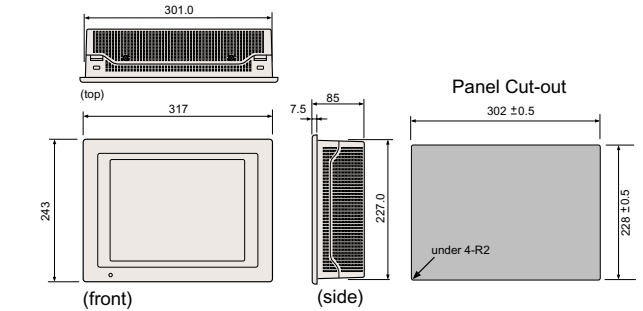
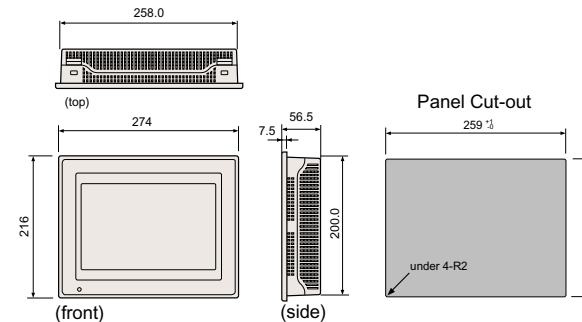
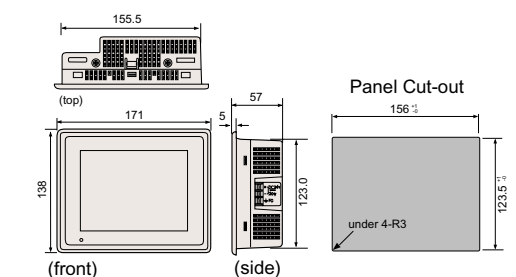
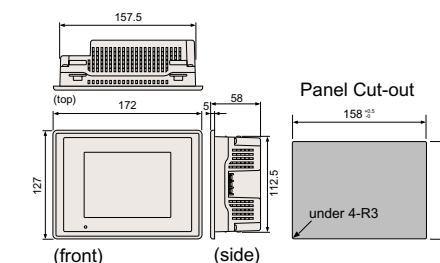
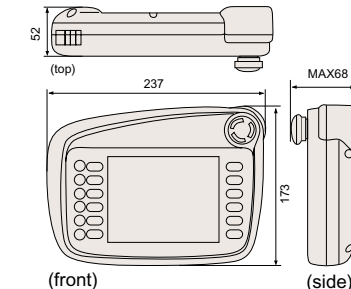
	GP-PRO/PBⅢ for Windows
PC	IBM Compatible
OS Version	MS-Windows 95/98/NT®
Memory	16MB, or higher
Disk Space	30MB minimum 53MB maximum *1
Mouse	Windows 95/98/NT® compatible
Printer	Windows 95/98/NT® compatible *2

\*1 40MB maximum for CD-ROM version

\*2 Printers with only Windows drivers cannot be used.

	Pro-Server with Pro-studio
PC	IBM compatible
OS Version	MS-Windows® 95/98/NT
Memory	16MB, or higher
Disk Space	10MB, or higher
Mouse	Windows® 95/98/NT compatible
Printer	Windows® 95/98/NT compatible
Ethernet	10BASE-2/5/T
Protocol	TCP/IP
Others	Ethernet Hub, Ethernet cable

## External Dimensions (mm)

● GP-675T  
GP-675S● GP-577RT  
GP-577RSGP-571T  
GP-570VM  
GP-570T  
GP-570S  
GP-570L● GP-477RE  
GP-470E● GP-377RT  
GP-377S  
GP-377LGP-370S  
GP-370L● GP-270S  
GP-270L● GP-H70S  
GP-H70L



# The Pro-face Family—HMI that you can count on

## Panel Computer PL Series

IBM Compatible Industrial Panel Computers

PL-6700 Series

PL-X900 Series



PL-5700 Series

PL-3700S



PL-B900 Series

## Flat Panel Display FP Series

Panel displays that can replace your CRT, keyboard and mouse, and save valuable space



FP-570T  
VGA Display

FP-770T/FP-775S  
XGY Display

## Graphic Logic Controller GLC Series

Programmable Operator Interface with I/O control features



GLC300T

GLC100 Series

Pro-Control Editor

## Graphic Panel GP Series

Programmable Operator Interface for Industrial Controllers



GP77R Series  
100MHz RISC CPU  
and 2-way Networking

GP70 Series  
32bit RISC CPU

GP-PRO/PBIII for Windows  
Screen Editor



**Caution:** Before operating any of these products, please be sure to read all related manuals thoroughly.

- For printing purposes, the colors in this catalog may differ from those of the actual unit.
- Actual user screens may differ from the screens shown here.
- LCD screens may exhibit minute grid-points (light and dark) on the Display Panel surface. Also, "Contouring" - where some parts of the screen are brighter than others, producing a wavelike pattern - may occasionally occur. Both are normal for an LCD display and are not defects.
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